DESCRIPTION OF PLATE II.

The accompanying map (Plate II.) shews all the places mentioned by Mr. Woosnam upon his labels, which it has been possible to identify. The route-line must be regarded as approximate, since it only represents a line drawn through these localities and is intended merely to assist reference. The altitudes given in the figures under the names are in English feet, and must likewise be regarded as approximate, for they are also taken from Mr. Woosnam's labels, and vary according to the spot at which he shot the bird, and do not exactly represent the altitude of the town or village near which the bird was obtained. The following is an itinerary based on the labels:—

Bushire, Feb. 10-14. Khisht River (near Bushire), Feb. 14. Ahwaz, Feb. 26-28. Bund-i-Kir, March 2-6. Shuteit River, March 8. Diz River, March 10-11. Dizful, March 12. Shus, March 14-19. Shuster, March 21. Shuteit River, March 23-26. Ahwaz, March 28-30. Ram Hormuz, April 2-6. Mal Amir, April 8-10. Deh-i-Diz, April 14. Dopulan, April 18. Ardal, April 20-21. Shalamzar, April 21-23. Bagh-i-Badaran (near Ispahan), April 24. Bagh-i-Naksh (near Ispahan), April 25. Ispahan, April 26-30.

Tiran, May 8. Feridan, May 9-11. Barbarud, May 11-12. Burujird, May 14-18. Sahna, May 20. Bisitun, May 21. Kermanshah, May 26-28. Takht-i-Suleiman, May 29. Sehna, June 1. Divandere, June 2. Sakiz, June 4. Suj Bulak, June 8. Lake Urmia, June 9-15. Diza, June 16. Bashkala, June 16–20. Lake Van, June 21-30. Gop, July 1. Erzerum, July 8. Tortum River, July 10-12. Arab Keni, July 15-16. Baibort, July 19-21. Sumela, July 22-26. Trebizond.

IV.—On the Birds of Blanquilla Island, Venezuela. By Percy R. Lowe, B.A., M.B., &c.

So far as I am aware, there are no previous records of the avifauna of this island. Count Dalmas visited it a few years ago, but published no account of his researches. Blanquilla is a pear-shaped island, 6¹/₄ miles long by over 3 miles wide, with its cone and base lying due north and south. It is 70 miles due north from the mainland of Venezuela, and 46 miles N. by W. from the westernmost point of Margarita, another and larger island which lies close to the mainland. Within sight of Blanquilla are seven very small rocky islets (well wooded, high, and steep) called Los Hermanos, of which the largest is called Orquilla—not to be confounded with Orchilla, which lies more to the west and is considerably larger.

Blanquilla is low, flat, and more or less barren. It is uninhabited, except by a few fishermen, who come over



Outline Map of Blanquilla and the neighbouring Islands.

for a month or two in the season from Margarita. Low cliffs of coral-limestone and lava bound its southern shore, where we landed; and from these the land gradually rises to a flat central plateau, 200 feet, more or less, above sea-level.

The cliffs consist of very tough, porous black rock, honey-combed in places with air-bubbles. Here and there along the coast are little coves fringed with mangroves, which in places grow to quite tall trees. In these mangroves I found nests, with eggs, of *Butorides* and *Nycticorax*. These birds have apparently a hard struggle with the Iguanas, which swarm among the bushes and prey on their eggs.

The vegetation on the island elsewhere is very similar to what is found at the western end of Margarita and on the low arid stretches of the Cariaco Peninsula of the mainland of Venezuela, and on the island of Curação. The central plateau is, however, bare, flat, and gravelly, dotted here and there with thin patches of acacia and cactus (*Opuntia* and *Cereus*).

Thinly scattered grass, dry and tindery, was struggling for existence on the parched-up ground at the time of our visit, but probably it springs up and flourishes in the rainy season, for, strangely enough, we saw large numbers of donkeys, horses, and goats all over the island.

Stretching along the eastern side of the plateau is a long belt of thick bushy scrub, with fairly well-grown trees here and there. Progress through it is tiresome, as the ground is covered with sharp jagged edges of coral-limestone rock, which protrudes through the scanty covering of soil. Dense growths of prickly shrubs, innumerable saud-flies, and a fiery heat complete the visitor's discomfort.

I could see no evidences of water, either in dried-up watercourses or shallow ponds. The fishermen dig wells near the shore, from which they get brackish and disgusting water.

Our stay at the island was limited to one day (April 5th, 1906); but by dint of hard walking from early morning till five in the afternoon, when we left, I managed to secure 55 specimens of birds. Of those seen, but of which specimens were not secured in the short time at my disposal, I noticed one other Tyrant-bird (most probably Tyrannus melancholicus) and examples of Polyborus, Buteo, Cerchneis, Ceryle, and Nycticorac. I also shot a Dove, which I was unable to secure, but I believe it to have belonged to the genus Zenäida.

I saw no examples of the genera Cardinalis, Conurus, Quiscalus, Icterus, Dendropler, Melanerpes, Correba, or Polioptila, some of which might well have been expected; and, so far as I could ascertain in the limited time, only one kind of Humming-bird (Chrysolampis moschitus), which is very common, occurs on the island. This is an abundant

form on the mainland, but, strangely enough, is not found on Margarita Island, which lies much nearer to Venezuela. *Doleromyia pallida*, on the other hand, which is very common on Margarita, was conspicuous by its absence on Blanquilla, although the conditions for its existence seem to be absolutely identical.

For the opportunity of visiting the island I am much indebted to the kindness of Sir Frederic Johnstone and Lady Wilton, who, at considerable inconvenience to themselves, allowed their yacht 'Zenaïda' to be taken to Blanquilla in the interests of ornithological research. I also take this opportunity of expressing my gratitude to my kind friend, Dr. Bowdler Sharpe, who on this, as on many other occasions, has generously given me his invaluable help.

The specimens that we collected on Blanquilla Island are referable to eight species only, as follows:—

1. CHAMÆPELIA PERPALLIDA.

Columbigallina passerina perpallida Hartert, Ibis, 1893, p. 304.

Columbigallina passerina Berl. J. f. O. 1892, p. 97 (Curação).

Chamæpelia perpallida Sharpe, Hand-l. Birds, i. p. 82.

Three adult males and five females.

The Ground-Doves from this island (as well as a series of three adult males and three adult females from the island of Margarita) are conspicuously paler than examples from Jamaica, which are apparently the true *C. passerina*. This pale colour, which prevails in the plumage of both upper and under parts and in both sexes, is even more apparent in the females than in the males.

In a series of eight females taken from the two islands the abdomen is creamy white, contrasting strongly with birds from Jamaica and the Lesser Antillean Islands, and still more so with examples from Florida (*C. terrestris*) and Mexico, Texas, and Lower California (*C. pallescens*).

In the males of my series from the two islands the occipital and nuchal patch of lavender-blue, besides being

paler and less conspicuous, is almost obscured by a band of brown, which in specimens from Jamaica, Florida, and the Lesser Antilles exists in a much less conspicuous form, so that the blue colour is more noticeable and is altogether brighter.

I have examined a large series of males in the British Museum labelled *C. passerina*, from both the mainland and the various Antillean islands, and it would appear that the further south one goes the less marked and paler this blue patch on the back of the head and neck becomes, and the more noticeable the brown discoloration. Thus in *C. terrestris* and *C. pallescens* the blue is very bright and there is hardly any brown; while in birds from Venezuela, Trinidad, and British Guiana the opposite state of things exists.

The under-tail-coverts of my specimens from Blanquilla and Margarita are distinctly lighter in appearance than in others—a condition produced by the paler centres to the feathers and the broader and nearly pure white margins.

The greater wing-coverts also, and the outer webs of the secondaries, tend to be margined with whitish, and are of a lighter brown, producing a distinctly pale appearance in the folded wing.

The bill of this bird varies from orange and orange-yellow to yellow at the base. In some females the bill is almost entirely black.

In respect of the colour of the bill in birds of this genus, it must be remarked that notes made from dried skins are practically worthless. Thus Mr. Chapman (Bull. Am. Mus. iv. p. 293) says:—"The bird from Eastern North America differs from the true *C. passerina* of Jamaica in having the base of the bill red instead of yellow." Yet a male specimen in my collection from Jamaica (1904) has a note on the back of the label on the colour of the bill in the fresh state as follows: "Bill orange-red, tipped with dark horn." It is now brownish horn-coloured; and Gosse, in his 'Birds of Jamaica' (1847, p. 311), in describing the Ground-Dove, Chamæpelia passerina, says: "Beak orange, black at the tip." Mr. M. J. Nicoll also, in a paper on "Birds from the West Indies"

('Ibis,' 1904, p. 572), says: "This species varies considerably in plumage and also in the coloration of the bill.

I have carefully examined a large series of specimens from Puerto Rico, St. Thomas, St. Croix, St. Kitts, Dominica, Grenada, &c., some of which I shot myself, and have rather reluctantly come to the conclusion that there are no sufficient grounds on which to separate them from the Jamaican form. Dr. Hartert has remarked on the much richer and darker colour of the birds from St. Thomas; and my opinion is that the squamate markings on the breasts of specimens, more especially females, in the series, are distinctly coarser, darker, and more noticeable, but further than this it is difficult to go.

As regards examples from the Cayman Islands, Mr. Ridgway separates them as *C. passerina insularis*, describing them as very similar to *C. bahamensis*, "but larger, and with the basal half (or more) of the bill distinctly orange or yellowish." I have examined specimens collected on these islands by Dr. Bowdler Sharpe, Mr. M. J. Nicoll, and myself, and beyond the fact that they are slightly paler above than specimens of *C. passerina* from Jamaica, I am unable to find any differences. In this I am in agreement with Mr. Cory ('Birds of West Indies,' 1889, p. 297) and Mr. Nicoll ('Ibis,' 1904, p. 585).

The Ground-Doves of Cuba have been lately distinguished as C. aflavida (Palm. & Riley, P. Biol. Soc. Wash. xv. p. 33). Seven or eight specimens in the British Museum have a deeper and somewhat rusty tinge below, probably due to stains from iron-impregnated soil.

C. terrestris and C. pallescens both appear to be good species. In a splendid series of the former bird in the British Museum, the males are of a very uniform dull vinaceous tint beneath, both over the breast and on the flanks and abdomen; the females are also of a uniform ashy-brown tint or almost mouse-colour beneath. The lavender-blue patch on the head and neck in the male birds is conspicuously bright and not obscured by brown. It is, indeed, a simple matter to pick out a Floridan bird, especially a female, out of a very large series from all parts.

Mr. Chapman, in comparing C. terrestris and C. passerina from Jamaica (Bull. Am. Mus. iv. p. 293), says that the squamate markings on the breasts of females of C. terrestris are much more marked than in Jamaican examples; but the opposite seems to me to be the case in the series which I have had the opportunity of examining. The throat, as Mr. Chapman remarks, is much whiter in Jamaican specimens than in those from Florida.

Dr. Hartert ('Ibis,' 1893, p. 304) says: "My pale birds from Curação (C. p. perpallida) are in colour nearest to the Mexican bird, but the wings are a little shorter, the colour still a trifle paler, and the base of the bill yellow instead of red." Dr. Hartert has very kindly sent me four males and a female of his C. p. perpallida for comparison; and my specimens, both from Blanquilla and Margarita, agree with his.

The males of *C. perpallida* have the wings 78-81 mm.; the females measure 74-78 mm. Males of *C. pallescens* from Mexico have the wings 84-87 mm., and the females 85-87 mm.

2. Butorides robinsoni.

Butorides robinsoni Richmond, Proc. U.S. Nat. Mus. xviii. p. 655 (1895).

I obtained only one specimen of this species on the island, a female, which was breeding. It does not agree entirely with the Margarita specimens of *B. robinsoni*, being much more rufous on the cheeks and ear-coverts, and having the neck dusky grey tinged with vinous.

3. Chrysotis Rothschildi.

Chrysotis rothschildi Hartert, Bull. B. O. C. iii. p. xii; id. Ibis, 1893, pp. 123, 328.

These Parrots were pretty common on the island, and we came across several fairly large bands. I shot three or four, but unfortunately only saved two skins—of an adult male and a young bird. The adult male has no signs of yellow on the chin or throat, and two bands of bluish or bluish green

extend upwards on either side of the chin and throat to the base of the lower mandible and well on to the cheeks; the forehead is very pale grey, the grey gradually merging into the yellow of the crown, which barely extends to the centre of the vertex. The bases of the feathers on the forehead are salmon-coloured. The ear-coverts are greenish blue, so that there is only a very narrow band of yellow extending below and beyond the eye. A few scanty feathers on the throat are white. The cubital edge is scarlet; the yellow shoulder-patch is slightly mixed with red; the outer bend of the wing is yellowish green. The abdomen is strongly tinged with blue, the feathers being slightly edged with black.

The young specimen is decidedly more green, with no bluish tinge on the abdomen. The distribution of the yellow coloration is similar, but this specimen has a yellow chin and throat.

4. Chrysolampis moschitus.

Chrysolampis moschitus Salvin, Cat. B. xvi. p. 113 (1892); Sharpe, Hand-l. ii. p. 119 (1900); Hartert, Tierr., Trochili, p. 100 (1900).

Four males and four females.

These specimens differ in no way from examples from the mainland.

This bird is very common on Blanquilla; but, strange to say, in Margarita—which is between it and the mainland and only fifteen miles distant from the latter, while Blanquilla is eighty miles away—I saw only one solitary specimen of this Humming-bird during my two visits. Neither Capt. Robinson nor Mr. Clarke met with the species on Margarita, although the conditions obtaining on the two islands seem to be practically identical.

5. Myiarchus tyrannulus.

Myiarchus tyrannulus Selater, Cat. B. xiv. p. 251; Richmond, Proc. U.S. Nat. Mus. xviii. p. 673 (1895); Clarke, Auk, xix. p. 264 (1902).

This Tyrant-bird is fairly common on Blanquilla, but I shot only one specimen, an adult male. It differs from

two examples from Margarita Island and those from the mainland in being decidedly lighter in colour above and below. The pileum is also paler brown, and a rather noticeable grey nuchal collar is present in the Blanquilla bird, which does not exist in the others.

6. Mimus gilvus.

Mimus gilvus rostratus Ridgway, Proc. U.S. Nat. Mus. 1884, p. 173 (Curação); Berl. J. f. O. 1892, p. 74 (Curação); Hartert, Ibis, 1893, p. 294.

In comparison with a series from St. Vincent, Grenada, and the Grenadines, my six specimens from Blanquilla are distinctly paler above. There is a strong ashy tint over the breast in the Blanquilla bird, contrasting in this respect with the paler colour of the lower parts in the St. Vincent and Grenada birds. There is also some fairly well-marked streaking on the flanks of the Blanquilla birds, but not more so than in some of the specimens labelled *M. gilvus* in the British Museum.

The irides of the Blanquilla birds vary from almost chromeyellow to pinkish hazel; the females usually have yellowish irides, the males pink. The females generally have the head much wider in appearance than the males, and I could as a rule prognose the sex by this sign before dissection, and the colour of the iris settled the point.

If there is any difference at all, the Blanquilla bird would appear to be intermediate between ordinary forms of *M. gilvus* and *M. rostratus*.

This Mocking-bird was not breeding at the time of our visit.

7. Dendræca Rufo-Pileata.

Dendræca rufopileata Ridgw. Proc. U.S. Nat. Mus. vii. 1884, p. 173; Berl. J. f. O. 1892, p. 76 (Curação); Hartert, Ibis, 1893, vol. v. p. 311.

I have compared a dozen specimens of the bird from Blanquilla with a series from Curação, Aruba, and Bonaire, which Dr. Hartert has kindly sent me for examination, and there seems to be no doubt that they are all identical. My specimens are in full plumage and agree exactly with Mr. Ridgway's original description. They were evidently just about to breed. Dr. Hartert's specimens seem not to have attained full plumage. All my males have exactly the same abruptly-defined chestnut-rufous patch which covers the forehead, crown, and occiput.

I have compared my series with specimens from Barbados (D. capitalis), and, except that the pileum and crown in the Barbadian birds are of a deeper tint, there is little difference between the two forms.

8. Euethia johnstonii.

Euethia johnstonei Lowe, Bull. B. O. C. xix. p. 6.

This form, of which I obtained a series of both sexes, is uniformly and markedly darker than examples belonging to the genus from all other localities, and I have no hesitation in separating it.

Adult male. Above dull olive-green, uniformly duller than in E. omissa, with conspicuous black patches formed by the dark centres of the feathers, which dark patches extend well down over the mantle and interscapular region to the centre of the back. Anteriorly, the dark blotches gradually merge into the uniform black of the crown and forehead. In some specimens the black of the crown extends well backwards over the occiput. The head and entire under parts are uniform plain black. There are no white edgings to the feathers on the abdomen or vent, or at any rate not in adult birds. The sides and flanks are black, faintly tinged with olive. The under wing-coverts are black; and the under tail-coverts black, margined with dusky grey. The feet and tarsi are darker than in the other species of this genus.

Adult female. Beneath of a decidedly more ashy tint than specimens of *E. bicolor*, and above ashy brown as compared with olive-green in that species.

Eucthia johnstonii may therefore be easily distinguished from E. bicolor by its blacker under surface and the general melanotic tendency of the plumage.

I have had much pleasure in naming this bird after Sir Frederic Johnstone.

In E. marchii the black coloration of the under parts ceases abruptly at the lower margin of the breast, and this is sufficient, without other characters, to distinguish the species not only from the Blanquilla bird but from all others of the genus. I have examined the very fine series of E. marchii from Jamaica, San Domingo, and Barbados, in the British Museum, while I have a few examples in my own collection; and this feature is very striking throughout.

In describing *E. sharpii*—which, from its locality (Curaçao), might be thought likely to be similar to the Blanquilla bird—Dr. Hartert ('Ibis,'1893, p.316) says:—"♂. Beneath similar to *E. bicolor*, but the black above confined to the forehead and sides of head; back and rump paler, a little more shaded with greyish; the black of the breast somewhat less deep and duller."

In depth of colour the Blanquilla bird approaches nearest to specimens from Venezuela, Trinidad, and Margarita Island, which birds Dr. Hartert (l. c.) calls E. omissa; but in these the colour above is decidedly lighter, the dark blotches over the mantle are absent, the head is not so black, the flanks are olive-grey instead of black, the under wing-coverts are not nearly so dark, and the abdomen and vent tend to have light greyish edges. One of my specimens from Margarita Island has the "scaling" on the abdomen, while the other has not.

Speaking of the differences between birds from the Lesser Antilles, Tobago, Venezuela, and Margarita Island (E. omissa) and birds from the Bahamas (E. bicolor), Mr. Ridgway says (B. North & Middle America, i. p. 540):—"Collectively they represent a form which may readily be distinguished from E.b. bicolor of the Bahamas by the decidedly shorter wing and tail and the brighter olive or olive-greenish upper parts."

While a series of six males in my collection from St. Thomas and St. Kitts agree with this description with respect to colour, one specimen from St. Thomas is decidedly darker than any I have seen from the Bahamas. On the other hand, in an adult male from Inagua (Bahamas), in the British Museum,

the colour above is decidedly as light as or lighter than that in the St. Thomas series. There is, in fact, an apparently endless series of gradations in the depth of colour above and in the disposition of the "solid" portion of the black on the under parts in birds from the Bahamas and the Lesser Antilles. I do not find, as Mr. Ridgway says on the same page, that this "solid" portion of the black chest in specimens from St. Thomas is as restricted as in E. marchii; nor is it so in specimens from St. Kitts, Virgin Islands, Dominica, St. Vincent, Montscrrat, Antigua, and Anguilla. In examples from all these islands the black may come well over the abdomen, with only narrow edgings to the feathers in the middle line. The flanks are dull olive-grey. It would appear, indeed, that the disposition of the black on the under parts is largely a question of age; and I should be inclined to unite the Bahaman and the Lesser Antillean birds under the name of E. bicolor.

> V.—Notes on the Parrots. (Part VII.) By T. Salvadori, H.M.B.O.U.*

Subfam. Psittacinæ and Palæornithinæ. (Cat. Birds Brit. Mus. xx. pp. 377, 387.)

Subfam. PSITTACINE.

PSITTACUS Linn.

Psittacus erithacus Linn.; Boc. Jorn. Sc. Lisb. (2) no. xiii. p. 10 (1895) (Fernando Po); Sclat. P. Z. S. 1902, p. 170; Salvad. Mem. Ac. Tor. (2) liii. p. 119 (1903); Rchnw. Vög. Afr. ii. p. 2 (1902).

Psittacus erythacus Hartert, Journ. f. Orn. 1886, p. 598 (Niger, Lokodscha, Congo, Accra); Jacks. & Sharpe, Ibis, 1902, p. 612; Alex. Ibis, 1903, p. 397.

Psittacus erythacus megarhynchus Hartert, Kat. Vög. Senck. Mus. p. 157 (note, Congo) (1891).

^{*} Continued from 'The Ibis,' 1906, p. 659.